

REVIEWER'S REPORT

Manuscript No.: IJAR-53370

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Title: Inflammatory Bowel Disease and Metabolic Dysfunction Associated Steatotic Liver Disease: Prevalence and Predictive Factors from a Moroccan Case Control Study"

Recommendation:

Accept as it isYES.....

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality			✓	
Techn. Quality		✓		
Clarity			✓	
Significance			✓	

Reviewer Name: Dr Aamina

Reviewer's Comment for Publication.

Keywords: MASLD, inflammatory bowel disease, Crohn's disease, ulcerative colitis, hepatic steatosis, metabolic syndrome, corticosteroids, liver ultrasound

Abstract and Scope:

The abstract provides a clear overview of the study's rationale, design, findings, and conclusions. It establishes the increasing clinical significance of MASLD in patients with inflammatory bowel disease (IBD) and emphasizes the interplay between metabolic and disease-specific contributors. The methodology and study design are concisely presented, and the results are reported with appropriate statistical detail, including prevalence, associations, and independent predictors. The conclusion highlights the clinical importance of integrating hepatic screening and metabolic assessment into IBD management protocols.

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Introduction:

The introduction situates MASLD as a major contributor to chronic liver disease, cirrhosis, and hepatocellular carcinoma. It describes the disease spectrum and its typical association with insulin resistance, while defining MASLD in clinical terms. The introduction also underlines the gap in knowledge regarding its prevalence and predictive factors in IBD populations, particularly in the Moroccan context. The background is coherent, relevant, and sets a strong foundation for the study's objectives.

Methods:

The study design is a retrospective-prospective case-control analysis conducted at Hassan II University Hospital, Fez. Patients with Crohn's disease or ulcerative colitis who underwent abdominal ultrasound between 2019 and 2025 were screened. Inclusion criteria are clearly defined, with steatosis-positive patients comprising the CASE group and steatosis-negative patients serving as CONTROLS. Data collection encompassed demographic, clinical, metabolic, therapeutic, and paraclinical parameters. Analytical methods involved univariate and multivariate statistical testing, with odds ratios and confidence intervals reported for independent predictors. The methodological approach is systematic and well-structured.

Results:

Out of 403 patients screened, 156 were included (52 CASE, 104 CONTROL), yielding a hepatic steatosis prevalence of 13.4%. Associations were observed between MASLD and multiple variables, including age under 45 years, metabolic syndrome, hypertension, undernutrition, active IBD, and extensive Crohn's disease. Corticosteroid exposure was substantially higher in the steatosis group, and abnormal liver function tests were frequently detected. Histology confirmed steatosis in two biopsy-proven cases. Independent predictive factors identified through multivariate analysis included metabolic syndrome, prolonged corticosteroid therapy, malnutrition, active disease, and exposure to azathioprine or methotrexate. The statistical reporting is clear, with odds ratios and confidence intervals providing robustness to the findings.

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Discussion and Interpretation:

The study underscores the multifactorial nature of hepatic steatosis in IBD patients, involving both traditional metabolic risk factors and disease-specific elements such as inflammation, nutritional status, and pharmacologic exposures. The role of corticosteroids and immunosuppressive therapies is highlighted as particularly significant. The findings align with emerging global evidence linking MASLD with systemic inflammation and IBD treatments, while providing novel data specific to a Moroccan cohort.

Conclusion:

The study concludes that hepatic steatosis in IBD patients arises from both metabolic and disease-related mechanisms. It emphasizes the value of early recognition of at-risk patients and the integration of hepatic and metabolic assessments into IBD management protocols. The conclusion is consistent with the results and underscores the clinical relevance of the findings.

Overall Assessment:

The manuscript presents a well-structured, clinically relevant case-control study that adds important data on the prevalence and predictors of MASLD in IBD patients within a Moroccan population. It effectively integrates epidemiological context, robust statistical analysis, and clinical interpretation. The findings contribute to the growing body of knowledge on the intersection of liver and bowel disease, offering insights with direct implications for patient care and management strategies.
